NOAA Teacher at Sea
Elizabeth Martz
Onboard NOAA Ship ALBATROSS IV
August 5 – 16, 2007

NOAA Teacher at Sea: Elizabeth Martz
NOAA ship ALBATROSS IV
Mission: Sea Scallop Survey
Date: August 8, 2007
Woods Hole, MA and North Atlantic

Weather Data from the Bridge
Visibility = <1 nautical miles
Cloud cover = fog
Wind direction = 200 degrees
Wind speed = 21 knots (kts.)
Sea wave height = 2-3 feet
Swell wave height = 2 feet
Seawater temperature = 15.1 degrees Celsius
Sea level pressure = 1004.2 mb

Science and Technology Log
12:00 midnight—Today my 12 hour shifts began. This is an amazing experience. I am loving my time onboard the ALBATROSS IV. It is quite exciting. Today was outstanding. I am experiencing being a researcher at sea.

The ALBATROSS IV has 12-hour shifts. The researchers are organized into two different shifts which are each 12 hours. I am on the midnight to noon shift. It is very different than my "teacher hours". I usually work from 7:30-5:00 at school. I am only required to be at school from 7:45- 3:15, but I can never accomplish all of my responsibilities in that brief of a time. I love school and I love being prepared.

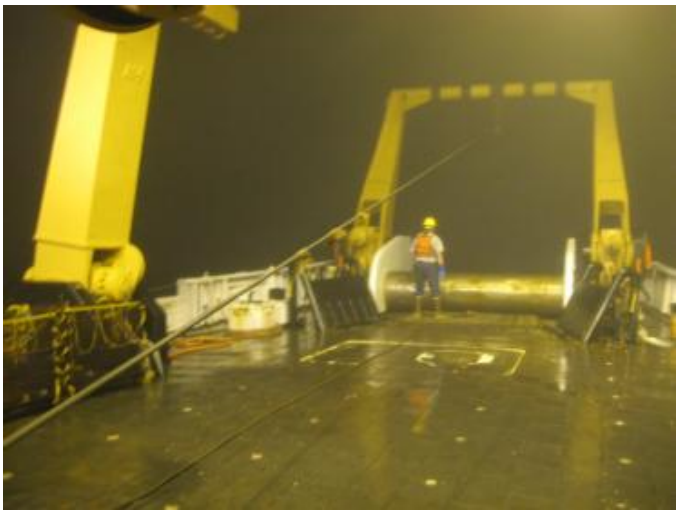
I love finding the sea scallops in the pile of all items from one dredge tow. I am having a remarkable time on the ALBATROSS IV.

To work on the ALBATROSS IV, you need to be prepared and ready for a hard day's work! I am loving the work and at this time it is not too hard ☺

My Responsibilities

I am a working member onboard the ALBATROSS IV. I am making every moment count and I am learning so much.

The dredge haul experience is unbelievable. There are two fishermen that help to release and the dredge. The two fishermen on my watch are Steve and Mike. They are amazing at fixing the net, loading the dredge, releasing the dredge, retrieving the dredge, cleaning the deck, helping to sort the organisms in the tow, and so much more. These fishermen have the expertise of sending the dredge into the water and helping it return back after a 15-minute tow. The Chief Boatswain (head fisherman), Tony, controls the mechanical devices that assist the fishermen in sending the dredge to sea. Tony is so talented. He has the ability to communicate and accomplish any task onboard the ALBATROSS IV! The fisherman and all the scientists on my watch observe the dredge coming onboard the ship. Once the dredge is on deck there is so much to do!!!



Steve is assisting with sending the dredge into the water. It is about 2 am and we are 2 hours into our watch shift. The dredge is over 1,600 lbs. and there are many pieces of equipment that help the dredge function properly!

When the dredge returns from being in the water for 15 minutes, there is so much to do. First, the fishermen need to bring the dredge up on deck. There are strong metal wires that bring the dredge up on deck. There are metal pulleys that help move the wire. There are mechanically parts that are controlled so that the dredge lands on deck without damaging anything… including the dredge. The entire process is so awesome and neat.

After the dredge is placed on deck, the fun begins. First, a scientist checks the dredge to see if it laid correctly on the ocean floor. The equipment that records the behavior of the tow is called an inclinometer. The inclinometer is placed inside the top of the dredge and the information is recorded. The scientist then needs to

go to a different room to read the information from the inclinometer. It is an interesting piece of scientific equipment.

The next experience is the best!! After a quick photo of what materials are found in the dredge, all the scientists gather around the dredge materials. We all marvel at what we dredged and then sort the items. We place all fish in one bucket and all skates in another. The scallops are all collected. The scallops are even organized by size. (Very small scallops are placed in a different bucket.) All the extra items go in a different bucket. When all biotic items have been discovered, then we shovel all the "habitat" (rocks and sand) into baskets. Every object that lands on deck is counted and documented.

I love all the amazing things I have found from this experience.

The scientists are all so excited to discover new things in this pile. Every dredge tow is full of biotic (living) and abiotic (non –living) items. It is so wonderful to discover new things.